SECTION 14 REGULATORY INFORMATION

The following regulations apply to this product.

FEDERAL REGULATIONS:

OSHA'S HAZARD COMMUNICATION RULE, 29 CFR 1910.1200:
Based on our hazard evaluation, none of the ingredients in this product are hazardous.

CERCLA, 40 CFR 117, 302:
Notification of spills of this product is not required.

SARA/SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (TITLE III) - SECTIONS 302, 311, 312 AND 313:

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355):
This product does not contain ingredients listed in Appendix A and B as an Extremely Hazardous Substance.

SECTIONS 311 and 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR 370):
Our hazard evaluation has found that this product is not hazardous under 29 CFR 1910.1200.

SECTION 313 - LIST OF TOXIC CHEMICALS (40 CFR 372):
This product does not contain ingredients on the List of Toxic Chemicals.

TOXIC SUBSTANCES CONTROL ACT (TSCA):
The chemical ingredients in this product are on the 8(b) Inventory List (40 CFR 710).

FOOD AND DRUG ADMINISTRATION (FDA):
Federal Food, Drug and Cosmetic Act:
While this product was not specifically developed for direct use in the papermaking process, when use situations necessitate compliance would be acceptable for use in the manufacture of paper and paperboard used for food contact purposes.

This product has been certified as KOSHER/PAREVE for year-round use INCLUDING THE PASSOVER SEASON by the CHICAGO RABBINICAL COUNSIL.

RESOURCE CONSERVATION AND RECOVERY ACT (RCRA), 40 CFR 261 SUBPART C & D:
Consult Section 11 for RCRA classification.

FEDERAL WATER POLLUTION CONTROL ACT, CLEAN WATER ACT, 40 CFR 401.15

SECTION 17 BIBLIOGRAPHY

ANNUAL REPORT ON CARCINOGENS, U.S. Department of Health and Human Services, Public Health Service, PB 33-135855, 1983.

CASARETT AND DOULL'S TOXICOLOGY, THE BASIC SCIENCE OF POISONS, Doull, J., Klaassen, C. D., and Admur, M. O., eds., Macmillian Publishing Company, Inc., N. Y., 2nd edition, 1980.

CHEMICAL HAZARDS OF THE WORKPLACE, Proctor, N. H., and Hughes, J. P., eds., J. P. Lipincott Company, N.Y., 1981.

DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS, Sax, N. Irving, ed., Van Nostrand Reinhold Company, N.Y., 6th edition, 1984.

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Title 29 Code of Federal Regulations Part 1910, Subpart Z, Toxic and Hazardous Substances, Occupational Safety and Health Administration (OSHA).

THRESHOLD LIMIT VALUES FOR CHEMICAL SUBSTANCES AND PHYSICAL AGENTS IN THE WORKROOM ENVIRONMENT WITH INTENDED CHANGES, American Conference of Governmental Industrial Hygienists, OH.

PREPARED BY: Ricky A. Stackhouse PhD., Toxicologist
DATE CHANGED: 09/09/93 DATE PRINTED: 06/06/94

NALCO CHEMICAL COMPANY ONE NALCO CENTER • NAPERVILLE, ILLINOIS 60563-1198
AREA 708-305-1000

JUL 13 1994

P-file

Amoco Oil Company
Post Office Box 710
Whiting, Indiana 46394-0710

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

July 12, 1994

Mr. Cody Fleece
Office of Water Management
Indiana Department of Environmental Management
100 N. Senate Avenue, P. O. Box 6015
Indianapolis, IN 46206-6015

Dear Mr. Fleece:

NPDES Permit No. IN0000108
Ammonia Discharge at Outfall 001, July 4, 1994

On July 5, 1994, Amoco Oil Company's Whiting Refinery reported to IDEM an apparent exceedance of the daily maximum discharge limitation for ammonia for July 4, 1994. The apparent exceedance was a consequence of an upset at the Sulfur Recovery Unit (SRU), which was caused by a power failure at the unit. Subsequent investigation has shown that due to an inaccurate flowmeter reading, this apparent exceedance was reported in error. This letter explains how the original reported exceedance was determined to be incorrect.

Makeup water to the refinery cooling towers consists of lake water during the summer months and/or recycled wastewater treatment plant (WWTP) effluent. On July 4, cooling tower makeup water was switched from lake water to recycled WWTP effluent to minimize flow at Outfall 001 due to the SRU upset.

The recycled effluent to the cooling towers is measured by an online flowmeter. In determining total flow from Outfall 001, recycled effluent flow is subtracted from the total WWTP effluent flow. This flowmeter is calibrated quarterly, but was out of service for over a month prior to July 4 when lake water was being used for makeup water. During this time, air apparently became trapped in the flowmeter taps. On July 6, the recycled effluent flow meter calibration was checked and the flow transmitter was found to be giving a false low reading. At this time, the trapped air was bled from the taps and the flowchart reading increased. This confirmed that the recycle effluent flowrate to the cooling towers was understated from the time it was put into service on July 4. Therefore, the total flowrate originally reported for Outfall 001 was incorrect and resulted in reporting a higher ammonia loading than was actually discharged. A detailed

explanation of the flowmeter calibration and flowrate recalculation is attached.

Based on the results of the calibration check, as confirmed by the Instrumentation Supervisor on July 7, the correct Outfall 001 flow for July 4, 1994 is 12.74 million gallons per day. At an ammonia concentration of 19.2 ppm, this results in a daily maximum discharge for ammonia of 2,040 pounds for July 4, 1994. This is below our 2,060 pound daily maximum limitation for ammonia allowed under our NPDES permit. Therefore, no exceedance occurred on July 4, 1994.

If you have any further questions, please contact Joe Naccache, Superintendent, Water Quality at (219) 473-3740.

Sincerely,

John R. White
Manager, Environment, Health, Safety & Training

Attachments

ATTACHMENT

FLOWMETER CALIBRATION EXPLANATION

The WWTP effluent recycle to the cooling tower flow loop was recalibrated by James Espinoza of the Instrumentation Group on 7/6/94.

The calibration is performed by inputting a known signal into the loop and then comparing the expected output to the actual output. This is typically done once at the bottom of the known span and once at the top.

The attached 1994 third quarter meter calibration check sheet shows the results of the calibration. The actual output was 1 psi low at both ends of the range. The low end, normally at 3 psi, showed an output of 2 psi. The high end, normally at 15 psi, showed an output of 14 psi. The output was incorrect due to air being trapped in the flowmeter taps.

The calculations attached to this document explain how the 1 psi error is translated into the corrected flowrate.

Revised to add attachment. 1994 - 3rd Quarter

FORM U-302

Page 1

Date 7/5 - 7/6

LAKEFRONT QUARTERLY NPDES METER CALIBRATION CHECK SHEET AND RECORD FOR PERMITTED OUTFALLS 001 AND 002

1. ETL Flow Loop

Input	Expected Output	Actual Output	% Difference	% Change Made

Comments _____

Checked out by _____

2. No. 6 Separator Flow Loop

Input	Expected Output	Actual Output	% Difference	% Change Made

Comments _____

Checked out by _____

3. Effluent Recycle to Cooling Towers Flow Loop

Input	Expected Output	Actual Output	% Difference	% Change Made
0	3psi	2psi	1psi	1psi
11.6"	15psi	14psi	1psi	1psi

Comments Transmitter was off 8.3% (1psi out of 12psi)

Checked out by James M. Espinoza

4. Effluent Recycle to Firewater System Flow Loop

Input	Expected Output	Actual Output	% Difference	% Change Made
0	4mA	4mA	0	0
300	20mA	20mA	0	0

Comments _____

Checked out by James M Espinoza

July 4, 1994 Cooling Water Recycle
Flow Adjustment Due to Recalibration

A calibration check of the cooling water recycle flowmeter on 7/6/94 indicated that the transmitter output was 1 psi low across the range (3 to 15 psi) of the transmitter.

The following calculations show how the correct flowrate was determined:

1. The incorrect flowchart reading (average) for 7/4/94 was 4.0 MMGal/D, or 40% of the 0 to 10 MMGal/D chartspan. This corresponds to 2.3 MMGal/D totalized flow.

2. Convert flow reading to pressure differential on flowmeter

   $(40.0\%)^2 = 16.0\%$ of the differential span

   [pressure is proportional to the square of the flow]

   16.0% x 12 psi span [15 psi - 3 psi] = 1.92 psi

3. Account for transmitter output error

   1.92 psi + 1 psi error = 2.92 psi

4. Determine new % of differential span

   $$\% = \frac{2.92 \text{ psi}}{12 \text{ psi}} = 24.3\%$$

5. Calculate new flowchart reading

   % of flowchart span = $\sqrt{}24.3\%$

   = 49.3%

6. Calculate ACTUAL cooling water recycle flowrate

   flow = 49.3% x 10 MMGal/D

   = 4.93 MMGal/D

7. Calculate the additional volume of water recycled due to the higher flowrate

   4.93 MMGal/D (corrected flow)
   - 4.00 MMGal/D (incorrect flow)
   0.93 MMGal/D

   The meter was in service for 14.5 hours (see attached unit strip chart) on July 4, so the total volume of water recycled is:

$$0.93 \frac{\text{MMGal}}{\text{Day}} \times \frac{1\text{Day}}{24\text{H}} \times 14.5\text{H} = 0.56 \text{ MMGal}$$

8. Calculate new ammonia release

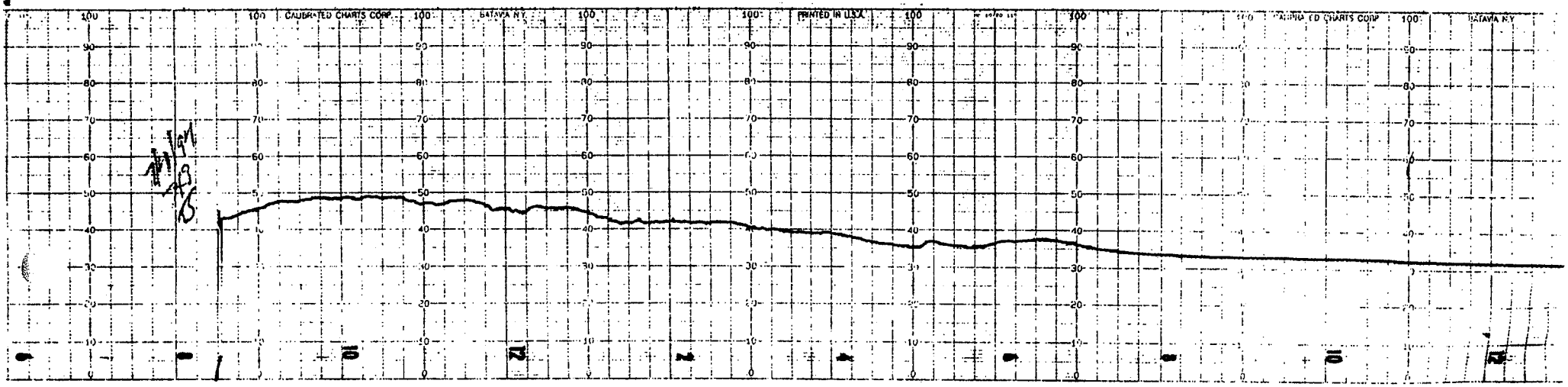
   Total WWTP Effluent Flow for July 4 = 13.3 MMGal/D

$$(13.3 - 0.56) \text{ MMGal/D} \times 19.2 \text{ ppm} \times 8.34 \frac{\text{LB}}{\text{Gal}} = 2{,}040 \text{ LB}$$

JULY 4, 1994

EFFLUENT RECYCLE TO COOLING TOWERS

STRIP CHART READING



0830 HR

2400 HR

HACI 7/5/94
FACO 7/5/94

20049 DWM

Amoco Oil Company
Post Office Box 710
Whiting, Indiana 46394-0710

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

June 23, 1994

Ms. Kathy Prosser
Commissioner
Indiana Department of Environmental Management
Office of the Commissioner
100 N. Senate Street
P. O. Box 6015
Indianapolis, IN 46206-6015

Dear Ms. Prosser:

Notice of Change in Refinery Manager
Whiting Refinery - NPDES Permit IN0000108

In accordance with 327 IAC 5-2-22(c), this is to notify you that Richard B. Sheldon will assume the duties of Refinery Manager, effective July 1, 1994. Mr. Sheldon replaces Timothy T. Scruggs, who is appointed President, Amoco Chemical Europe.

Sincerely,

J E Naccache

Joseph E. Naccache
Superintendent, Water Quality

cc: Mr. Lonnie Brumfield - IDEM

X-Lake Co.

ake County Soil and Water Conservation District

928 South Court Street, Suite C - Crown Point, Indiana 46307 - 219-663-0238

File upstairs

May 13, 1994

MAY 17 1 02 PM '94

To: IDEM
Office of Water Management
Permit Section, Storm Water Desk
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46204-5015

From: Lake County Soil & Water Conservation District
928 South Court Street
Suite C
Crown Point, IN 46307

Subject: Rule 5 Erosion Control Plan

This letter is to notify IDEM, in accordance with 327 IAC 15-5, of the receipt of an erosion control plan for:

AMOCO Whiting Refinery, J & L Highlands, in Section 19, Township 37 North, Range 9 West, North Township, Lake County, Indiana.

From: Bascor Environmental, Inc.
800 West Central Road
Suite 104N
Mt. Prospect, Illinois 60056
(708) 577-1980

Brian Wietbrock, Chairman
Lake County Soil & Water Conservation District

cc: Bascor Environmental, Inc.
Hammond Plan Department

(B) 2/28/94
"P" file

Amoco Oil Company
2815 Indianapolis Boulevard
Post Office Box 710
Whiting, Indiana 46394-0710
219-473-7700

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

February 17, 1994

Mr. Lonnie Brumfield
Chief, Permit Section
Indiana Department of Environmental Management
Office of Water Management
100 North Senate St.
P.O. Box 6015
Indianapolis, IN 46026-6015

Dear Mr. Brumfield:

Notice of Temporary Shutdown of Storm Surge Tank
Amoco Oil Whiting Refinery - NPDES Permit No. IN 0000108

This is to inform you that our Wastewater Treatment Plant Storm Surge Tank 5051 will be taken out of service starting February 28, 1994 for maintenance and installation of a new roof. The outage is expected to last until April 1, 1994.

This tank is not part of the normally utilized wastewater treatment system. No exceedances of our discharge permit limitations are anticipated, because of this work.

If you have any questions, please contact me at 219-473-3740.

Sincerely,

J. E. Naccache
Superintendent, Environmental Control

NRG/nrg

Late C.
IN000108

Fax Message

BP Products North America Inc
Whiting Business Unit
2815 Indianapolis Blvd.
P. O. Box 710 – MC 122
Whiting, IN 46394-0710

Telephone: 219-473-3393
Fax: 219-473-5379
e-mail Rosalie.Herrera@bp.com

bp

Cc: Nick Ream
Bob Simmons
Hala Russ
Gary Starkus

From: Rose Herrera

Team: Health, Safety, Security & Environmental
Environmental Engineer

Date: 10/10/06

Pages to follow: 2

URGENT ☐ **ORDINARY** ☒ **CONFIDENTIAL** ☐

To: Mr. Don Daily Copy to:

Company: IDEM

Name: Chief Compliance Evaluation

Fax no: 317-232-8406

Message:

Courtesy Notification of Possible Bypass + Maint. Operations of WWTP Facility.

BP Whiting Refinery
2815 Indianapolis Blvd
Whiting, IN 46394

IN 000010P

bp

BP Products North America Inc
Whiting Business Unit
2815 Indianapolis Blvd.
PO Box 710
Whiting, IN 46394-0710

FAX

October 10, 2006

Don Daily
Section Chief Compliance Evaluation
OWQ Compliance Branch
Indiana Department of Environmental Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

Re: BP Products, NA Whiting Refinery NPDES Permit No. IN0000108, Notification of Maintenance Activity and bypass of Clarifier

Dear Mr. Daily,

This letter is to inform you that the BP Whiting Refinery Waste Water Treatment Plant (WWTP) will take one of its two clarifiers out of service for maintenance and inspection from approximately October 11 through December 8, 2006. This notice is being given to your department in anticipation of a possible bypass of treatment facilities as is required by our NPDES permit IN0000108, Section B (2)b.

We have two clarifiers that normally receive equal flow and operate in parallel before final filtration of our effluent to outfall 001. One of these clarifiers (tank 5004) will be taken out of service for internal repairs and maintenance. In order to minimize any negative impacts during this time, BP has taken proactive steps to ensure that permit requirements will be met during this time period by identifying temporary flow reductions within the refinery, enacting our normal water shed plan, optimizing the use of polymer and treatment additives as needed in the one clarifier remaining in service, choosing a month where wet weather and temperatures are minimized, as

well as close monitoring of several water treatment plant operating parameters such as DO and sludge volumes.

We will plan to utilize the one clarifier for all of our flow treatment and do not intend to bypass this treatment step. However, if an emergency situation occurs there is a 10 million gallon storm surge tank that will be utilized in case of emergency impoundment of refinery waste water or if there becomes a need to bypass any treatment steps at the WWTP. Your office will be notified if such a need does occur.

Please contact Rose Herrera (219) 473-3393 if you have any questions regarding this notice.

Sincerely,

Linda Wilson

Linda J. Wilson
Environmental Superintendent

I:Environmental\Water\WAT-NPDES\Agency Corr\2006